

REMARKS/ARGUMENTS

This is a full and timely response to the final Office Action dated March 7, 2003. Reexamination and reconsideration are courteously requested.

By way of the current amendment, claims 1 and 5 are amended, and claim 6 is canceled. Thus, claims 1 to 5, and 7 to 11 are currently pending for the Examiner's consideration.

Although after a final Action, the present amendment's entry is respectfully requested as compliant with 37 C.F.R. § 1.116. The amendment to claim 1 is supported by canceled claim 6, and the text at page 10, lines 25 and 33. The amendment to claim 5 is supported by the fact that the lower limit of 14 GPa is the total of two lower limit values in part (6) of claim 1. Thus, the amendment does not raise new issues for the Examiner's consideration, reduces the number of claims before the Examiner, and does not raise issues of new matter. The amendment also overcomes the rejections of the claims for the reasons set forth below.

In the Office Action, the Examiner rejected claims 1 to 3, 5 to 9, and 11 under 35 U.S.C. § 102(a) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over JP 11-144227 ("Masafumi"). The rejections are respectfully traversed, for at least the reasons set forth in the last action, which are incorporated by reference. Further, claim 1 is narrowed by adding features pertaining to Young's moduli, recited in part (6) of the claim. The Young's moduli are fully supported by the December 9, 2002 Declaration, in Run 1. The Young's moduli are also outside the Young's moduli in a width direction shown in all the Examples of Masafumi. Thus, the rejections based on Masafumi are respectfully requested to be withdrawn. "A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131.

Claims 1 to 3, 5, and 7 to 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,665,454 ("Hosoi"). Claims 1 to 2, 4 to 5, 7 to 8, and 10 are also rejected under 35 U.S.C. § 102(b) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,364,684

("Sakamoto"). These rejections are respectfully traversed for the reasons stated in the prior response, which are also incorporated by reference, and also in light of the amendment to claim 1 discussed above regarding Young's moduli.

Claims 1 to 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 59-127730 ("Toray") in view of WO 99 25553 ("Teijin '553"). These rejections are respectfully traversed.

Toray discloses a polyethylene naphthalate film which has (a) an F-5 value of 22 to 35 kg/mm², (b) a Young's modulus of 650 to 1,100 kg/mm², (c) a thermal shrinkage factor (150°C x 1 hour, under no tension) of 2.5 to 3.5 % and is not very anisotropic. Toray relates to a small anisotropic film, and is completely silent with respect to a dimensional change as defined in the present claims. Therefore, Toray fundamentally differs from the claimed invention of the present invention.

Further, an object of the present invention is to prevent a tape from slipping off of the track when it is made to run repeatedly at a high temperature and a high humidity (see page 1, lines 24 to 34 and page 2, last line to page 3, line 11 of the present specification). This object can be accomplished by the above dimensional change. In contrast, Toray merely teaches that a base film for a magnetic recording medium such as a video tape, but fails to teach or suggest that a problem exists concerning slippage of the tape during storage of data on the tape. For at least these reasons, a person of ordinary skill in the art would not reach the claimed invention by a reading of Toray.

Also, Toray discloses values for α_l and α_h , but these values alone are not sufficient for a teaching or suggestion of all of the features included in claim 1. To be more particular, Toray discloses in Example 3 that a film has a Young's modulus in a longitudinal direction of 740 kg/mm² and a Young's modulus in a transverse direction of 721 kg/mm². The Young's modulus in the longitudinal direction of such a film falls below the lower limit value (8 GPa) of the presently claimed invention. All the other Examples of Toray merely mention films having a higher Young's modulus in a longitudinal direction than a Young's modulus in a transverse direction.

Regarding Teijin '553, this reference discloses an adhesive polyester film comprising

(a) a biaxially oriented polyester film base layer, and (b) an adhesive layer formed on at least one side of the base layer. Teijin '553 discloses a method of producing the polyester film (a) in paragraph [0023] and teaches that the unstretched film is stretched between 3 and 7 times in a longitudinal direction, and between 3 and 5 times in a transverse direction. However, the biaxially oriented polyester film disclosed in Teijin '553 is obtained by stretching the unstretched film to 3.6 times x 3.8 times (area draw ratio = 13.7) (Examples 1, 2, 3, and 4).

In contrast, the present invention relates to a biaxially oriented polyester film per se, which has no adhesive layer. The biaxially oriented polyester film of the present invention is produced by stretching an unstretched film in the longitudinal and width directions at an area draw ratio of 15 to 35 times as described at page 11, line 25 to page 12, line 12 of the present specification. Examples of the present invention as disclosed include biaxially oriented films having area draw ratios of about 24.5 (Ex. 1 ad 7), about 21.1 (Ex. and 3) and about 22.6 (Ex. 4, 5, and 6).

As explained above, Teijin '553 relates to a laminate (adhesive polyester film) comprising (a) a biaxially oriented polyester film and (b) an adhesive layer. This does not mean that a polyester film was actually produced under the disclosed conditions of the method for producing the polyester film (a). In other words, even if the production conditions (stretching conditions) of the polyester film (a) disclosed by Teijin '553 overlap with the conditions (stretching conditions) of the production method of the biaxially oriented polyester film of the present invention, it does not follow that the biaxially oriented polyester film of the present invention was actually produced by the teachings and Examples disclosed in Teijin '553. Rather, the polyester film (a) which is confirmed to have been produced in Teijin '553 is merely a film having a smaller area draw ratio (13.7) than the area draw ratio (15 to 35) for producing the biaxially oriented polyester film of the present invention. When the 4.5 μm thick biaxially oriented films obtained in Example 1 and Example 2 of Teijin '553 were measured for their dimensional changes (α_w) defined in the present invention, they were 0.65 % and 0.43 %, which are clearly larger than the upper limit specified by the present claims.

The dimensional change in Teijin '553 as defined in paragraph [0065] is an entirely different parameter than that of the above discussed dimensional change defined in the present application and claims. Thus, Teijin '553 fails to teach or suggest a film which satisfies part (6)

of claim 1 in the present application. Consequently, Teijin '553 fails to compensate for the deficient teachings of Toray.

Further, Teijin '553 is directed to a thermosensitive image transfer recording material, which differs from the present invention which is directed to the technical field of magnetic recording media. The problem of the magnetic recording media, which the present invention overcomes, is film slippage from its track when it is made to run repeatedly at a high temperature and at high humidity. Since Teijin '553 fails to suggest an application of its teachings in the field of the present invention, a person of ordinary skill in the art would not be motivated to reach the present invention when reading Teijin '553 alone or together with Toray.

Finally, claims 3 to 7, and 9 to 11 are further rejected as being unpatentable over Toray and Teijin '553 in further view of EP 0893249 ("Teijin '249"). These rejections are respectfully traversed for the reasons set forth above, and for the following reasons.

Teijin '249 teaches that particles are contained in a film, and discloses surface characteristics of the film obtained due to the existence of the particles. However, Teijin '249 fails to teach or suggest that a problem exists or is overcome regarding slippage of a tape from its track. This is because a linear tracking recording system having extremely high recording density for data storage introduce the problem. Teijin '249 also fails to make mention of such factors as αw and dimensional stability. Most importantly, the films disclosed by Teijin '249 have a higher Young's modulus in a transverse direction than in a longitudinal direction. Thus, claims 3 to 7, and 9 to 11 are not obvious in view of Toray and the Teijin references, and it is respectfully requested that these rejections be withdrawn.

Dated: May 7, 2003

Respectfully submitted,

By 
David K. Benson

Registration No.: 42,314
RADER, FISHMAN & GRAUER PLLC
1233 20th Street, N.W.
Suite 501
Washington, DC 20036
(703) 955-3750
Attorneys for Applicant